

## **REMARKS**

Applicant would first like to thank Examiner Truong for this examination.

Claims 1-16 are currently pending in the application. Claims 6-11 and 13-16 are rejected under 35 USC 101 as being directed to non-statutory subject matter. Claims 1-3, 6-7, 9-10, and 13 are rejected under 35 USC 102 as being anticipated by US Pat. No. 6,098,091 to Kisor (hereafter "Kisor"). Claim 5 is rejected under 35 USC 103 as being unpatentable over Kisor in view of US Patent No. 6,779,016 to Aziz et al. (hereafter "Aziz"). Claims 4, 8, 11, and 14-15 are rejected under 35 USC 103 as being unpatentable over Kisor in view of US Pat. Publ. No. 2002/0198924 to Akashi et al. (hereafter "Akashi"). Claim 12 is rejected as being unpatentable over Akashi in view of Kisor. Claims 1 and 4-16 are objected to for informalities. The specification is objected to for informalities.

Regarding the Examiner's objection to Third paragraph on page 9 "The scheduler section 110 issues a job execution request regardless of the operating status of the process server 200 to which the job has been assigned, and sends it to the PS agent section 120 corresponding to the process server 200 to request it to execute the job.  
"

## **OBJECTIONS TO THE SPECIFICATION**

The Examiner has objected to the specification for informalities, and in particular for omitting spaces between words at various places. The Applicant respectfully contends that spaces were provided between the words in question, but due to the use of a fill-type formatting, the spaces varied in size and sometimes appear to be missing entirely. Applicant has submitted a substitute specification with left-justification formatting and constant spacing, rendering the specification more legible.

The Examiner also objected to the specification as failing to provide proper antecedent basis for limitations in claims 4, 8, 11, and 15.

Claims 4, 8, 11, and 15 include various forms of the limitation "the agent sections send the request received from the scheduler section to at least some of the process servers in response to polling accesses from the process servers, and the agent sections send the request received from the scheduler section to at least some of the other process server at timing managed by the agent sections. Antecedent basis for sending a request to one process server in response to polling access from the process server (pull type scheduling), and sending a request to another process server at timing managed by the agent section (push-type scheduling) is provided at page 9, paragraph 4 – End of page 10.

## **OBJECTIONS TO THE CLAIMS**

The Examiner has objected to claims 1 and 4-16 for various informalities. These claims have been amended to correct the informalities, obviating this ground for objection.

### **CLAIM REJECTIONS – 35 USC 101**

Claims 6-11 and 13-16 are rejected under 35 USC 101 as being directed to non-statutory subject matter. Specifically, claims 6, 9, and 13 are rejected as being directed to software alone. Their respective dependent claims are rejected as failing to cure the deficiency of the parent claims.

Claims 6 and 9 are amended to include the processor 11 and memory 13 shown in Fig. 2 and described in last paragraph of page 5 and the third paragraph of page 6, obviating this ground for rejection.

Claim 13 is amended to claim a computer program product comprising a computer readable non-transitory storage medium (such as main memory or magnetic disk) and a program encoded thereon (see third paragraph of page 6), obviating this ground for rejection.

### **CLAIM REJECTIONS - 35 USC 102**

Claims 1-3, 6-7, 9-10, and 13 are rejected under 35 USC 102 as being anticipated by Kisor.

Applicant respectfully contends that claim 1, as amended, includes a feature that is neither disclosed nor suggested by Kisor or any other reference, namely “an agent section which ... sends the job execution request to the process server to which the requested job has been assigned, in a manner selected to accommodate an access type of the process server. Claim 6 includes the related feature “an agent section which ... provides a request for execution of the job to the computer, in a manner selected to accommodate an access type of the computer”. Claim 9 includes the related feature “performs transmission and reception according to an access type of the computer”. Claim 12 includes the related feature “sending the job execution request to the process server to which the job has been assigned, according to the access type of the process server”. Claim 13 includes the related feature “sending a request to the process server to which the requested job has been assigned, in a manner selected to accommodate an access type of the process server”.

In the present invention, the agent section sends the job execution request directly to the process server when the process server is capable of accepting a direct request. On the other hand, if the process server can not accept a direct request, such as when access is controlled through a firewall (fourth paragraph of page 9), the agent section waits for polling from the process server, and sends the request in response to polling from the process server.

Kisor does not disclose or suggest a grid computing system that can accommodate process servers with different access types. Nor does Kisor disclose or suggest sending a job request to process server in a manner selected to accommodate the access type of the process server. No other reference provides what Kisor lacks.

Claims 2-5 depend from claim 1, claims 7-8 depend from claim 6, claims 10-11 depend from claim 9, and claim 14-16 depend from claim 13. Applicant respectfully contends that these claims are allowable for the reasons that their respective parent claims are allowable.

Claims 2 and 10 is also allowable because it includes another feature that is neither disclosed nor suggested by Kisor or any other reference, namely “each of the plurality of process servers is provided with a separate agent section” and “separate agent sections are provided for each of computers constituting the grid computing system”. In the present invention, when a process server 200 is to be added to or removed from the system, the system configuration can be readily changed by adding or removing a PS agent section 120 corresponding to the press server.

While Kisor teaches that the management program is provided for each process server, it does not disclose or suggest separate agent sections for each process server, and therefore, the system of Kisor can not add or remove a process server to the grid by simply adding or removing a corresponding agent section.

### **CLAIM REJECTIONS - 35 USC 103**

Claim 5 is rejected under 35 USC 103 as being unpatentable over Kisor in view of US Patent No. 6,779,016 to Aziz et al. (hereafter “Aziz”). Claims 4, 8, 11, and 14-15 are rejected under 35 USC 103 as being unpatentable over Kisor in view of US Pat. Publ. No. 2002/0198924 to Akashi et al. (hereafter “Akashi”). Claim 12 is rejected as being unpatentable over Akashi in view of Kisor.

Claims 4 and 5 depend from claim 1, claim 8 depends from claim 6, claim 11 depends from claim 9, and claims 14-15 depend from claim 13. Applicant respectfully contends that these claims are allowable for the reasons that their respective parent claims are allowable.

Applicant respectfully contends that claims 4, 8, 11, and 15 are also allowable because they include another feature that is neither disclosed nor suggested by Kisor, Akashi, or any other reference, either alone or in combination. Claim 4 includes the feature “at least one agent section sends a first job execution request received from the scheduler section to the corresponding process server in response to polling access from the corresponding process server, and at least one second agent section sends a second job execution request received from the scheduler section to the corresponding process server in a push type scheduling scheme at timing managed by the second agent section”. Claim 8 includes the related feature “a first one of the agent

sections provides a request for execution of the corresponding job to a first one of the computers constituting the system in response to polling accesses from the first one of the computers, and at least a second one of the agent sections provides a request for execution of the corresponding job to a second one of the computers in a push scheduling scheme at timing managed by the agent sections". Claim 11 includes the related feature "the agent section sends a request for execution of the job issued by the scheduler section to at least a first one of the computers in response to polling accesses from the computers, and sends a request for execution of the job issued by the scheduler section to at least a second one of the other computers in a push scheduling scheme at timing managed by the agent section". Claim 15 includes the related feature "to send the request to at least a first one of a plurality of process servers in response to polling accesses from the process servers, and send the request to at least a second one of a plurality of process servers at timing managed by the computer".

In the present application, agent sections send job execution requests both: (1) to a first process server (computer) in response to polling accesses from the first process server (pull scheduling) and (2) to a second process server (computer) at timing managed by the agent (push scheduling). None of the references teach combining push scheduling and pull scheduling in the same grid computing system. Kisor and Akashi both describe push scheduling systems. Each are complete grid computing systems, and neither suggests combining pull scheduling and push scheduling according to access types of the process servers.

The Examiner argues that Kisor discloses sending a job execution request to a process server in response to polling from the process server at Col. 2, lines 24-30 and Col. 6, line 35. However, the cited text describes the central computer polling remote computers (i.e., process servers) for availability information not the process server polling the center server to provide access.

### CONCLUSION

In view of the amendments and arguments presented herein, Applicant respectfully contends that claims 1-16 are in condition for allowance. Accordingly, Applicant respectfully requests entry of the amendments, reconsideration and allowance of claims 1-16 and issuance of letters patent.

Sincerely,  
  
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